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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,978	03/08/2001	Kesar Saleem	079-146	2167
7590	12/23/2003		EXAMINER	
Donald C. Casey Suite 100 311 North Washington Street Alexandria, VA 22314			LEE, BENNY T	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



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FILED DATE

☐ This application has been examined ☒ Responsive to communication filed on 10 Sept 2003 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), 2 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.                 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 1, 3-24 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☒ Claims 2, 25 have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1, 6, 7, 11-13 are rejected.
5. ☒ Claims 3-5, 8-10, 14-24 are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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The substitute specification filed 10 September 2003 has been considered, found acceptable and has replaced the original specification. However, informalities have been found in the substitute specification as detailed in the below specification objection.

The disclosure is objected to because of the following informalities: Page 2, paragraph (4), second line therein, page 4, paragraph (11), fourth line therein, page 8, paragraph (22), fourth line therein: note that  $\pi$  should precede "mode" at each occurrence for a proper characterization. Page 2, paragraph (6), fourth line, note that  $i$  should follow "transmit" for a proper characterization. Page 3, paragraph (7), fifth line therein, note that "powere" should be correctly spelled as  $power$ ; paragraph (9), seventh line therein, "said" should be rewritten as  $the$  for a proper characterization. Page 4, paragraph (9), 8th line therein,  $slots$  should follow "four" for clarity; paragraph (11), fifth line therein, note that  $the$  should precede " $\pi$ -1" & "coaxial", respectively for clarity. Page 5, paragraph (12), fifth line therein, note that  $each other$  should follow "intercept" for clarity. Page 7, paragraph (20), fourth line therein, note that "the ..." should be rewritten as  $The ...$ . Page 8, paragraph (21), second & fourth lines therein, note that "18" should correctly be  $16$  and "17" should correctly be  $14$ ; paragraph (22), 9th line therein,  $in figure 3$  should follow "seen" and in the 12th line therein,  $in figure 4$  should follow "mode" for proper characterizations. Page 9, paragraph (23), first line therein, "the" should be rephrased as  $As shown in Figure 1, the$  for clarity of description; paragraph (25), fifth line therein, "it" should be rephrased as  $the outer conductor$  for a proper characterization. Page 10, paragraph (25), 9th line therein, "it" should be rephrased as  $the second coaxial line$  for clarity

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of description; paragraph (26), second line therein, note that “there” should be rephrased as --these reflector slits” & “those shown at” should be rewritten as --slits-- for proper characterizations. Note that reference labels (10, F) as labeled in Figure 2 need to be explicitly described in the specification description of Figure 2. Appropriate correction is required.

The drawings are objected to because in Fig. 2, reference label --15-- needs to be added to the drawing figure as per page 8, paragraph (21). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims 11, 12, 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 11, 12, note that it remains unclear which one of the “at least one reflector slits” is intended by the recitation of “the reflector slit”.

The following claims have been found objectionable for reasons set forth below:

In claim 1, line 3, note that “it” should be rephrased as --said mode-- for clarity; fourth line, note that “it” should be rephrased as --said another mode-- for clarity.

In claim 6, note that -- $\pi$ -- should be inserted prior to “mode” (first occ) and -- $\pi$ -- should be inserted prior to “1” for a proper characterization.

In claim 17, second line, note that “an axial direction” should be rephrased as --the axial direction-- for consistency with claim 1, from which this claim directly depends.

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In claim 19, note that --said-- should follow "wherein" for clarity of description.

In claim 23, note that "o" should be correctly spelled as --of--.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 6, 7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gardiner.

Gardiner (Fig. 1) discloses a magnetron comprising anodes (71) having resonant cavities therebetween and coaxially arranged relative to cathode (23). Note that an output means (not shown) is described as a coaxial line, aligned axially with the cathode axis, and having an inner conductor thereof electrically connected to plate (55) and an outer conductor thereof electrically connected to flange (15) as described at col 4, ls 1-20. Note that coupling loops (51, 53) serve as output means which, in operation, will couple out the desired " $\pi$ " mode of oscillation as well as couple out undesired modes of operation (including the "n-1" or " $\pi$ -1" modes out along the unshown coaxial line which is electrically connected to the coupling loops. As known to those of ordinary skill in the art, the primary (i.e. desired mode) in a coaxial line is the TEM mode while the next higher order (i.e. unwanted mode) mode in a coaxial line would have been the " $TE_{11}$ " (i.e. a cylindrical mode). Although the coupling loops propagate the desired primary mode of oscillation and the unwanted higher order mode of oscillation, the arrangement of the coupling

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loops are such that energy in the primary oscillation mode is propagated while the unwanted higher order modes are suppressed or dissipated.

Applicant's arguments with respect to claims 1, 6, 7 have been considered but are moot in view of the new ground(s) of rejection.

Claims 11-13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 3-5, 8-10, 14,<sup>15,</sup> 16-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

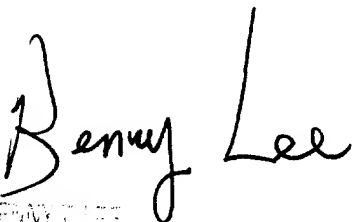
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Lee whose telephone number is (703) 308 4902.

  
BENNY LEE  
Patent Examiner  
Art Unit 2817

B. Lee

December 12, 2003